Canadian Community Health Survey
topics
Cycle 1.1 Report 6

Fruit and Vegetable Consumption in Nova Scotia

September 2004

The Canadian Community Health Survey (CCHS) is a new health survey being conducted by Statistics Canada. Its purpose is to provide regular and timely cross-sectional estimates of health determinants, health status, and health system utilization for 136 health regions across the country. Data from the first installment of the CCHS, Cycle 1.1, was collected between May and December of 2001 and released in May 2002.

A general overview of Cycle 1.1 data is available at <http://www.gov.ns.ca/heal/downloads/cchs_dha.pdf>.

Health Canada, in its publication, "Canada's Food Guide to Healthy Eating," recommends that you include 5 to 10 servings of fruits and vegetables a day as part of a healthy diet. The lack of fruit and vegetable consumption has been linked to serious disease such as cancer and cardio-vascular disease. Prior to the CCHS there were no fruit and vegetable consumption modules included on any of the national surveys. The absence of this module created a surveillance void around this important behavioural risk factor for chronic disease and necessitated it's inclusion in the CCHS. This report examines fruit and vegetable consumption in Nova Scotia.

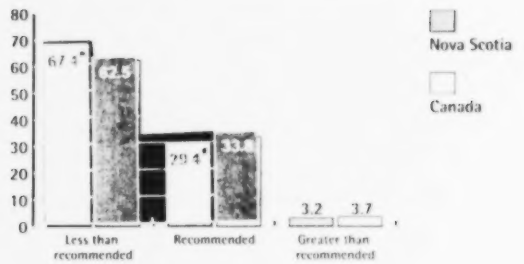
It should be noted that "serving" is not defined in the survey questionnaire. This may have led to respondents not interpreting the word as it is defined by Health Canada. Furthermore, whereas Health Canada recommends that the majority of fruit and vegetable consumption come from eating green vegetables and orange fruits, no distinction is made in the survey. This suggests that one report of eating 5 servings of fruit and vegetables a day may differ in nutritional value to the next.

Only twenty-nine per cent of Nova Scotians, significantly less than Canada as a whole, aged 12 years and older, report eating 5 to 10 servings of fruits and vegetables a day, as recommended by Health Canada, 67.4% per cent do not meet this recommendation, while 3.2% exceed it (Fig. 1). Note too in Fig. 1. that Nova Scotia is worse than the national proportions in all three categories. These rates do not differ significantly across DHAs. Women are significantly more likely than men to report eating 5 to 10 servings of fruits

NOVA SCOTIA
Department of Health

106-04980/

FIGURE 1



* Significantly different from Canada.

Recommendation: 5–10 servings per day

and vegetables a day (34.7% of women, as opposed to 23.6% of men, report eating 5 to 10 servings a day).

Whereas women show a steady upward trend in the proportion meeting the recommended amount of 5 to 10 servings of fruits and vegetables per day across age groups, men do not. Also a significantly greater proportion of women aged 65 years or more meet the recommendation than women aged 12 to 19 years and 20 to 44 years. (Fig. 2).

There appears to be a "U-shaped" relationship between fruit and vegetable consumption and age among men. Twenty-nine per cent of males between the ages of 12 to 19 report meeting Health Canada's recommendation for fruit and vegetable consumption. This rate falls to 21% for those between the ages of 20 and 44, and remains relatively constant until it rises again to 31.1% among males ages 65 years and older.

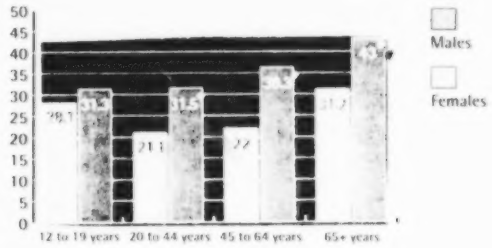
A notable gap between men and women in fruit and vegetable consumption is seen beyond 19 years of age and persists throughout the life span. Women between the ages of 20 and 44, 45 and 64, and those 65 years and older are all significantly more likely than men in their respective age categories to report meeting Health Canada's recommendation for fruit and vegetable consumption. (Fig. 2). This suggests that women are generally more concerned about what they eat and about including fruits and vegetables in their diet.

Interestingly, there is no difference in fruit and vegetable consumption across income or education groups. This suggests that people concerned with healthy eating may assign it a high priority while budgeting their money.

Despite there being no significant difference across income levels, those who experienced food insecurity (see Appendix I) in the past 12 months were less likely to report eating 5 to 10 servings of vegetables than those who did not experience food insecurity. This suggests that there may be discrepancy *within* the range of the lowest income quintile where those at the lowest end of the quintile, experience food insecurity, while those at the upper end of the quintile do not.

Smokers are significantly less likely to report eating 5 to 10 servings of fruits and vegetables than non-smokers: 20.8% of smokers, compared to 32.7% of non-smokers report this level of fruit and vegetable consumption (see Fig. 3).

FIGURE 2



* Significantly different from males.

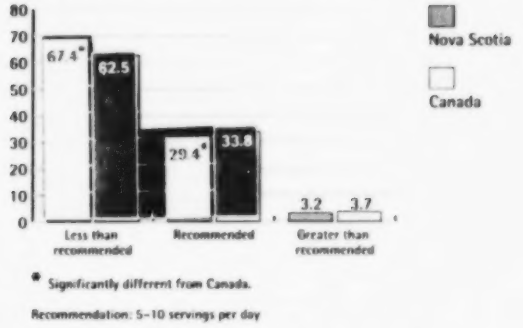
\# Significantly different from women aged 12–19 years and 20–44 years.

Health Canada recommends 5–10 servings FHV per day

There also exists a relationship between physical activity and healthy eating: people who are physically active are significantly more likely to report eating 5 to 10 servings of fruits and vegetable a day than those who are not (34.5% of those who are physically active, as opposed to 25.2% of inactive people).

106-04980/

FIGURE 1 Percent respondents meeting Health Canada recommendation for fruit and vegetable consumption



and vegetables a day (34.7% of women, as opposed to 23.6% of men, report eating 5 to 10 servings a day).

Whereas women show a steady upward trend in the proportion meeting the recommended amount of 5 to 10 servings of fruits and vegetables per day across age groups, men do not. Also a significantly greater proportion of women aged 65 years or more meet the recommendation than women aged 12 to 19 years and 20 to 44 years. (Fig. 2).

There appears to be a "U-shaped" relationship between fruit and vegetable consumption and age among men. Twenty-nine per cent of males between the ages of 12 to 19 report meeting Health Canada's recommendation for fruit and vegetable consumption. This rate falls to 21% for those between the ages of 20 and 44, and remains relatively constant until it rises again to 31.1% among males ages 65 years and older.

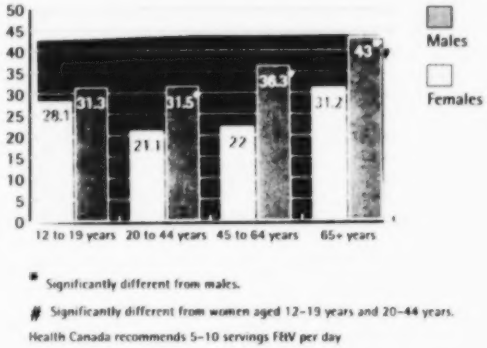
A notable gap between men and women in fruit and vegetable consumption is seen beyond 19 years of age and persists throughout the life span. Women between the ages of 20 and 44, 45 and 64, and those 65 years and older are all significantly more likely than men in their respective age categories to report meeting Health Canada's recommendation for fruit and vegetable consumption. (Fig. 2). This suggests that women are generally more concerned about what they eat and about including fruits and vegetables in their diet.

Interestingly, there is no difference in fruit and vegetable consumption across income or education groups. This suggests that people concerned with healthy eating may assign it a high priority while budgeting their money.

Despite there being no significant difference across income levels, those who experienced food insecurity (see Appendix I) in the past 12 months' were less likely to report eating 5 to 10 servings of vegetables than those who did not experience food insecurity. This suggests that there may be discrepancy *within* the range of the lowest income quintile where those at the lowest end of the quintile, experience food insecurity, while those at the upper end of the quintile do not.

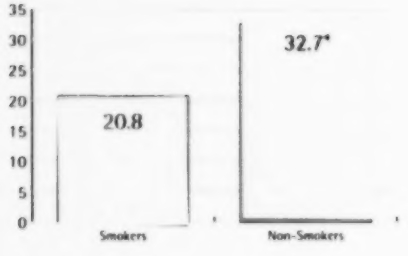
Smokers are significantly less likely to report eating 5 to 10 servings of fruits and vegetables than non-smokers: 20.8% of smokers, compared to 32.7% of non-smokers report this level of fruit and vegetable consumption (see Fig. 3).

FIGURE 2 Percent respondents who meet Health Canada's recommendation for daily fruit and vegetable consumption by age and sex



There also exists a relationship between physical activity and healthy eating: people who are physically active are significantly more likely to report eating 5 to 10 servings of fruits and vegetable a day than those who are not (34.5% of those who are physically active, as opposed to 25.2% of inactive people).

FIGURE 3 Percent respondents meeting Health Canada recommendation for fruit and vegetable consumption by type of smoker



* Significantly different from smokers.

Health Canada recommends 5–10 servings FRV per day

Although there is no significant difference in self-perceived health status between those who eat the recommended daily amount of fruits and vegetables and those who do not, it should be noted that those who ate more than the recommended amount reported being in better health than those who ate less than the recommended daily amount.

This suggests that being in "good health" is multifaceted and requires more than only eating healthy foods. It may be that those who are eating more than the recommended amount of fruits and vegetables are also concerned about other aspects of their health beyond diet alone, and therefore engage in other health promoting behaviours.

There does not appear to exist a relationship between fruit and vegetable consumption and body mass index. This, added to the fact that neither self-perceived health, nor the prevalence of chronic conditions were related to fruit and vegetable consumption, suggests that a healthy body mass index, overall good health, and avoidance of chronic conditions are multi-factorial and are predicted by more than diet alone. Thus one must pay attention to other risk factors, such as regular exercise, not smoking, and moderate alcohol consumption as well as diet.

Among Nova Scotians who eat greater than the recommended number of servings of fruits and vegetables, almost one quarter (22.5%) report staying in bed due to illness or injury (including any nights as a patient in a hospital) in the previous 14 days. Those who report an intake of less than ten servings of fruits and vegetables a day show a significantly lower prevalence of people staying in bed due to illness or injury (including nights spent as a patient in a hospital). This does not imply that eating more than the recommended daily consumption will increase the risk of illness or injury. But rather it suggests again that being healthy, or avoiding injury or illness, is multi-factorial and relates to more than diet alone.

Appendix I

Food Insecurity: Three questions were asked in CCHS 1.1 regarding the availability of food in the household:

In the past 12 months, did you or anyone else in your household worry that there would not be enough to eat because of a lack of money?

In the past 12 months, did you or anyone else in your household not have enough to eat because of a lack of money?

In the past 12 months, did you or anyone else in your household not eat the quality or variety of foods that you wanted because of a lack of money?

Respondents could answer: 1) often, 2) sometimes, 3) never, 4) don't know, 5) refusal, 6) not stated. Based on their answers, a fourth variable was derived that indicated if there was some food insecurity or not. A response of 1) or 2) above to any of the three questions would indicate food insecurity.

Additional Resources:

This document was prepared by the Performance Measurement and Health Informatics Section, Information Management Branch of the Nova Scotia Department of Health. For additional information on the data included in this report, please contact us at 902-424-8291.

Copies of this report are available on line at: http://www.gov.ns.ca/health/downloads/cchs_Fruit&Vegetable_2004.pdf

Copies of other reports in this series form CCHS 1.1 and 1. 2 are available at:

http://www.gov.ns.ca/health/downloads/cchs_depression02_2004.pdf

http://www.gov.ns.ca/health/downloads/cchs_utilization_2003.pdf

http://www.gov.ns.ca/health/downloads/cchs_smoking_2003.pdf and

http://www.gov.ns.ca/health/downloads/cchs_physical_activity_2003.pdf.